

May 28, 1941

My dear Irwin,

I do hope you will be able to visit Harpenden. I am, as a matter of fact, here every day with but few exceptions.

About χ^2 , the distribution is certainly unaffected by making a sub-selection at random of the contents of each cell (plate). I recall giving a good deal of attention at the time to this sub-normal variance, which I think we never cleared up experimentally. The kind of factor which would produce such an effect is competition. The distribution of passengers in compartments of a train is notably subnormal, because late comers try to avoid the more crowded carriages. A bacterial species producing a toxin injurious, at least at germination, to the same species would tend to occupy points on the plate on a lattice, the scale of which is independent of the size of the plate. Consequently sufficiently large plates and sufficiently dense suspensions would give subnormal χ^2 .

Yours sincerely,